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REPORT

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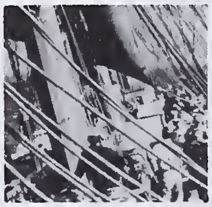

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COVER: Today's Army aeroscout traces his heritage to the 19th Century cavalryman of the West.

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BICENTENNIAL BITS

(FALL 1774): Under John Hancock, Massachusetts has formed a Committee of Safety, with the goal of calling and equipping a military force for war if necessary. Field grade officers have been instructed to recruit 1/4 of all militia into emergency companies of 50 men each and be prepared to move at an instant's notice anywhere in the colony. Each man will have a firearm, pouch, knapsack and 30 rounds ball and cartridge. He will train three times weekly and be paid by his hometown. Due to their readiness at short call, they will be known as "Minutemen."

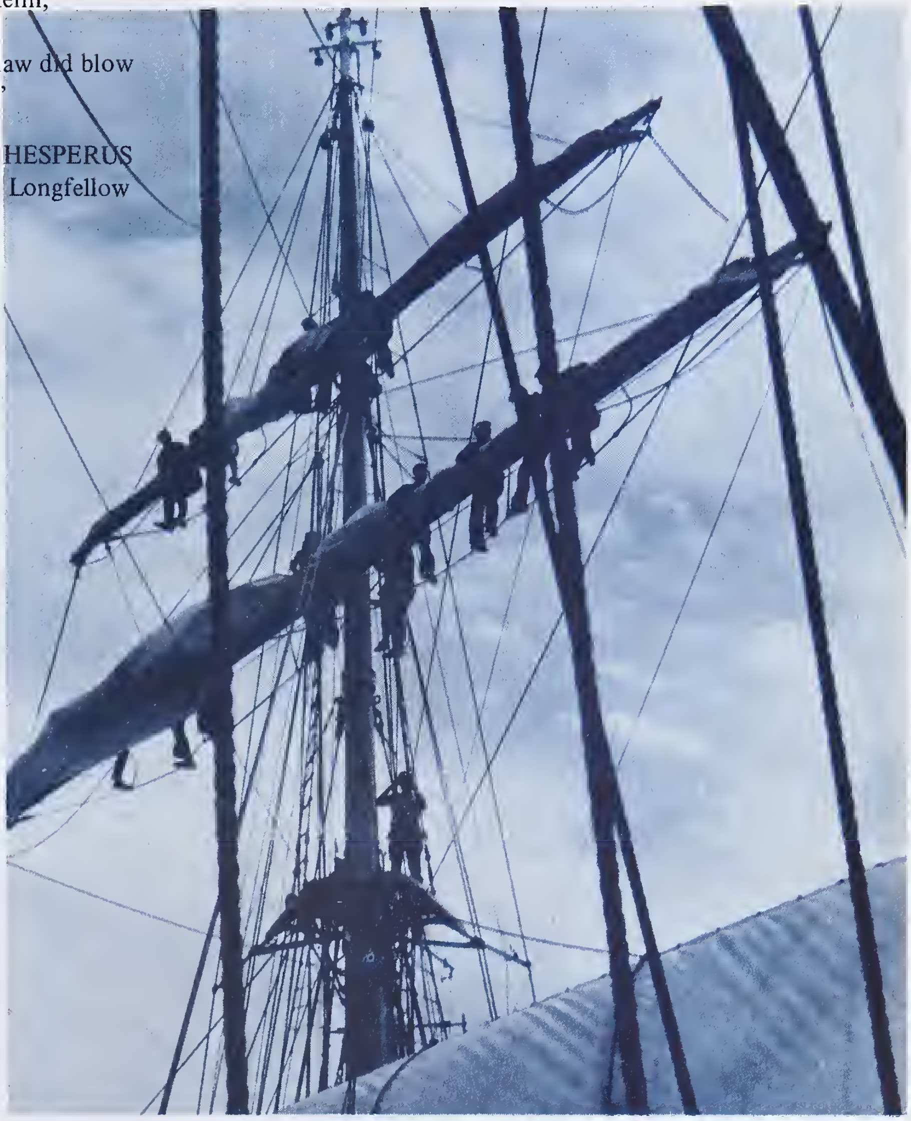
The era of sail revisited

by d. m. ryan

photos courtesy of the coast guard academy

"The skipper he stood beside the helm,
His pipe was in his mouth,
And he watched how the veering flaw did blow
The smoke now West, now South."

WRECK OF THE HESPERUS
Henry Wadsworth Longfellow



A cadets daily work often requires activity aloft in the rigging.

Many a year has passed since America's military seamen trained at and manned the helm of a fully rigged ship of sail. However, due to the belief that such experience should be a prerequisite for its commissioned officers, the U.S. Coast Guard Academy maintains and utilizes one of the world's great sailing ships.

The barque EAGLE was obtained from the Germans as war reparation in 1946. She was built in 1936, serving first as a training vessel for German seamen and later as a cargo ship. Statistically, the barque is 295 feet long, has a main mast 150.3 feet high and carries 21,350.8 square feet of sail in 22 pieces. She also has a 750 horsepower diesel engine. All the modern equipment found on today's cutters can be located on the EAGLE, but it is the sail, not the diesel, which is of concern to Academy cadets.

During their years at New London, Connecticut the cadets will make several summer cruises aboard the ship. Pleasure and sightseeing are coupled with hard work in order to make the trips beneficial. Cruises may follow the sea lanes to Europe, the

Excitement mounts during foul weather when sails must be handled a hundred feet above the sea.

Pacific, the Atlantic or the Caribbean. Exotic as this may sound, the primary purpose is to develop leadership and promote learning by doing. If a man can handle himself, others and emergencies under sail, he should be ready for any modern ship.

The future Coast Guard officers know the exhilaration of performing under sail, and the lessons learned will place them in good stead aboard a cutter. To the sounds of blocks creaking, sails bellying to the wind and halyards slapping against the masts, the cadets can settle into shaky hammocks with a feeling of great accomplishment.

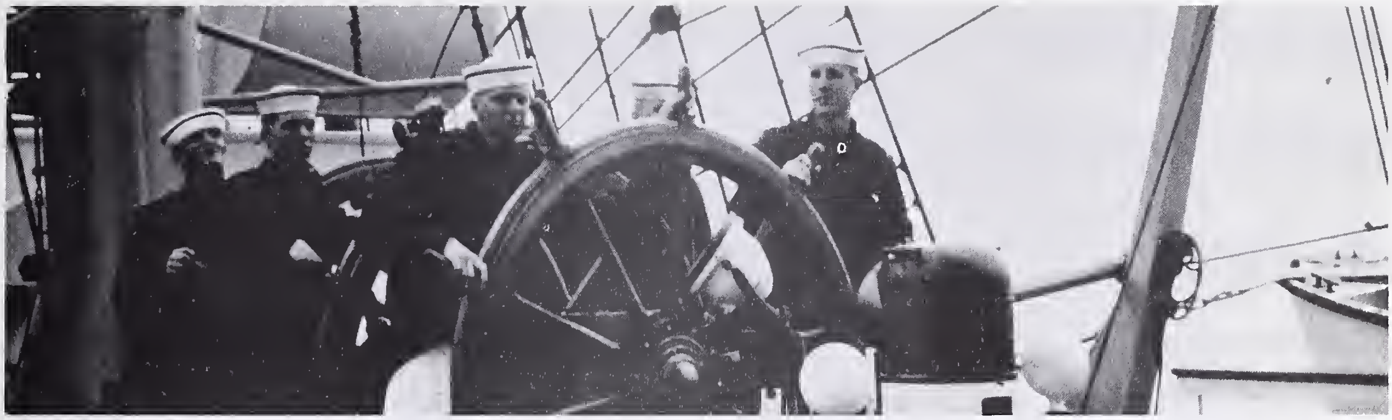
The barque EAGLE hence helps the Coast Guard develop the leadership it needs and at the same time, brings back a glimpse of the sail era. Those who have made cruises take pride in spinning yarns about the time they stood beside the helm, "watched how the veering flaw did blow" and sailed the EAGLE.

On the first cruise, underclassmen practice and learn the fundamentals of sailing and seamanship. They stand watch, splice parted lines, work in the rigging and perform duties usually assigned enlisted men on a cutter. Their knowledge becomes so complete that they can operate and function in the dark. Maintenance of the vessel is assimilated the hard way, with chipping hammers and brass polish.

Upperclassmen hold positions of more responsibility during cruises. They serve as officers of the deck, engineering officers and communications officers. Additionally, they gain experience in navigation, scheduling, handling emergencies, instructing and directing subordinates. Organized drills are practiced to perfection, otherwise it would be difficult to hoist sails when 200 lines must be coordinated by three mast captains, under the command of the officer of the deck. Teamwork is essential.

It should be noted that Academy cadets are not set adrift alone. While some 150 to 200 may participate in

Constant motion and activity is the order of the day when the Eagle cruises under sail.



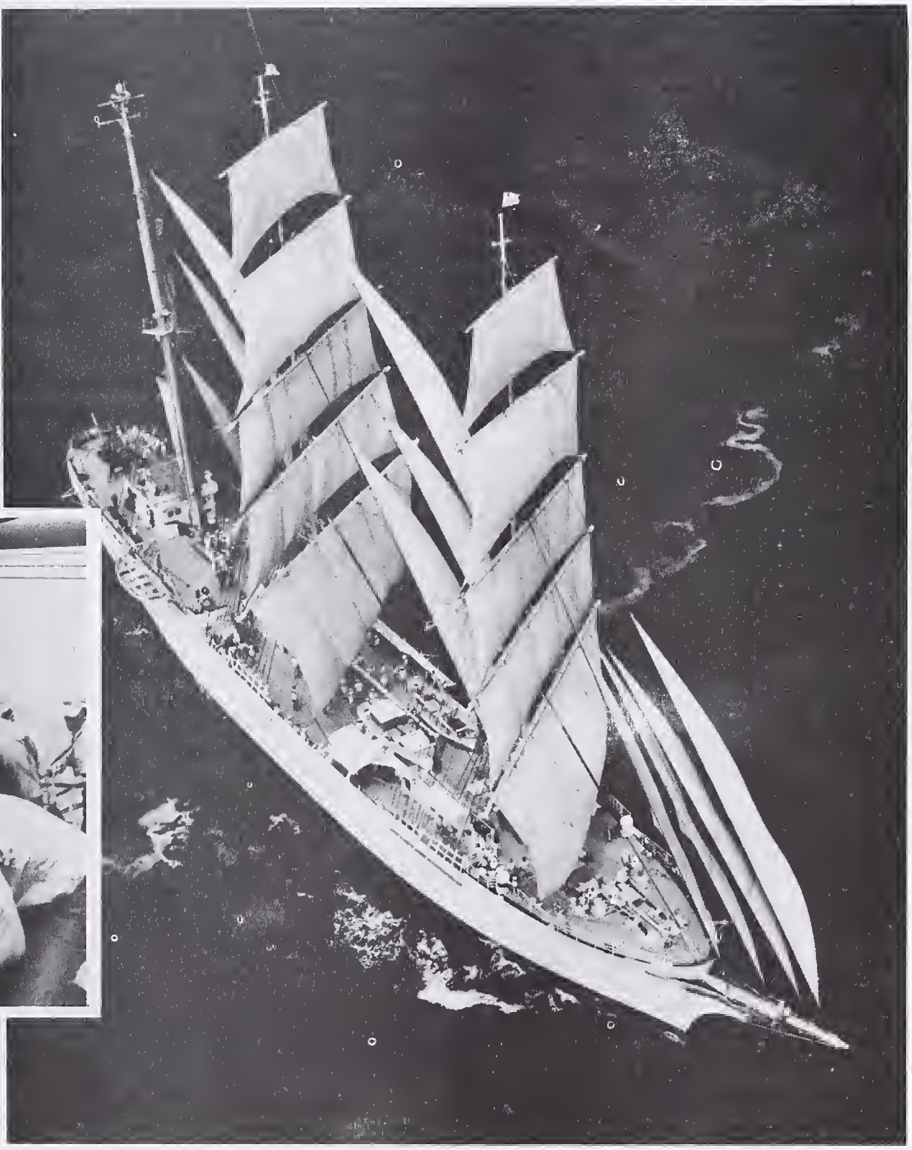
Up to six men may have to man the wheel during rough seas and high waves.

each cruise, the EAGLE has a crew of regular Coast Guardsmen. This team of 50 to 60 officers and men instruct and handle such chores as cooking and engine maintenance.

Although exciting, the cruises are not always paradise. Most of the cadets sleep on the second deck in hammocks. The average day may last 12 to 14 hours - few 40 hour weeks. Some 80 percent of a cruise might be spent traveling, with 60 percent of that under sail. Climbing aloft in the rigging and manning the yardarms is necessary in foul weather as well as good. And when seas are rough and the wind propels the ship to her maximum 17 knots (about 20 MPH), it may take six men to handle the wheel.

Early in the experience, cadets find that sailing a vessel like the EAGLE is a bit more difficult than managing a modern cutter. Knowledge of sails, halyards and lines is a necessity. If progress is to be made, a feel must be gained for the delicate balance needed between ship, sea and wind.

When sails are hoisted, team work is required to man some 200 lines.



USAF 'blue' looks better on her!

by T. D. Stephens

Maybe having your identification checked by a member of the fairer sex takes some of the displeasure out of having to stop at the gate.

"They took the blue from the skies and a pretty girl's eyes. . ."

So read the words of the Air Force song. But today, the service has also taken the whole girl.

Many women are finding themselves, and fulfillment, in the U. S. Air Force. Maybe it's because, like most services, it has opened just about all fields except combat ones to females. For example, it's not unusual to find girls as pistol-packin' security police. Having that AFSC (Air Force Specialty Code) is paramount to being your own watchdog.

But security isn't the only field that benefits from the presence of the female sex. They have infiltrated, much to the consternation of some older males, almost every domain once held sacred by airmen. Additionally, they receive all the same rights, privileges and benefits.

It is not strange to find Air Force women performing as aircraft mechanics, electricians, metal workers or air conditioning/refrigeration mechanics. However, they also continue to serve in the more demure positions as administrative clerks, hospital workers, staff assistants and drivers.

Indications are that the future will bring greater opportunities than even the recent past. Further information on jobs and career fields that women may train for can be found in the September 1974 "Basic Facts About Military Service" issue of REPORT. It is available through your guidance department.

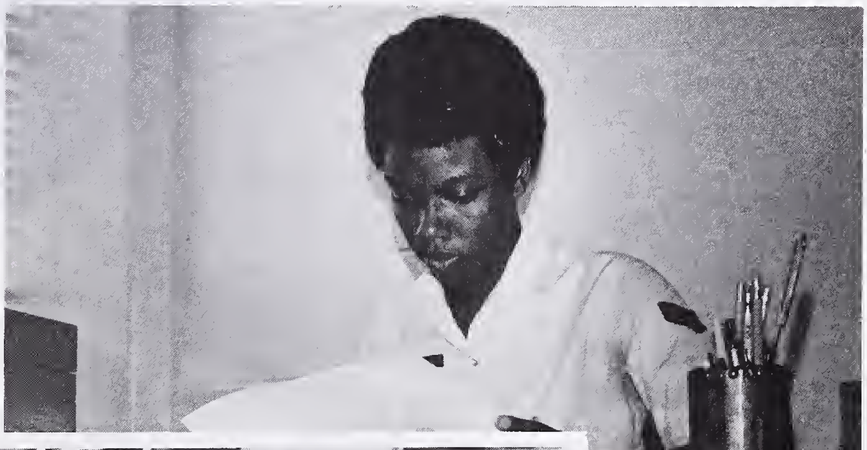
Maybe the song should be changed to reflect that they took a pretty girl's eyes and placed them into Air Force skies. For, today, the sky is the limit for women in Air Force blue.

Command has been available to women for many years, but now the units are getting larger and with greater responsibility.

Electrician is one of the many fields opened within the past few years to Air Force women.

Efficiency is the name of the game with metal workers, whether they be men or women in the USAF.

Women drivers almost make going somewhere worthwhile, even though the AFSC (Air Force Specialty Code) isn't new to Air Force Women. . . .



. . . nor is the administrative field.

Crewchiefs on Air Force planes are some of the best schooled, finest personnel that wear the "blue." And that applies to the newly assigned feminine touch, in a field recently opened to women.

Aeroscouts .. from horses to helicopters

by d. m. ryan

photos by sfc r. b. redmond

A cavalry colonel stands with his staff, overlooking a river valley. As he thrusts an indicating finger toward the waters, he orders the scouts to "move out" and reconnoiter crossing sites and the wooded area beyond.

This scene could have taken place in the horse cavalry days of 1874 or in today's modern air cavalry era. Missions of the scouts in either period are similar, with the main difference being the replacement of horses with helicopters.

An Army aeroscout team today consists of a pilot and an observer, usually traveling in an OH58 observation helicopter. This team is part of the air cavalry troop which, besides scouts, contains airmobile infantry and attack helicopters (Cobras). Scout teams may operate in groups or separately. Either way, their purpose is to provide reconnaissance and security for other Army units. This involves obtaining information on the enemy, defeating his forces when possible and protecting friendly units from surprise attack.

Mounting and maintenance of the helicopters minigun is a preflight requirement.

Paramount to the success of aeroscouting is the two man team. Each member must be highly motivated and trained in his specific job. If either fails to perform in an exact manner, the mission and the lives of many others are jeopardized. Therefore, the training and skills of each pilot and observer are of utmost importance.

Scout pilots receive their flight training at Fort Rucker, Alabama, and are normally commissioned or warrant officers. Only the best qualified survive the rough schooling to face the demanding scout job. Pride, good judgement, maturity, responsibility and professionalism mark their character.

But there is more to their position than just flying. The pilot knows the aircraft inside and out. He is responsible for preflight checks and for ensuring that proper maintenance is performed on the helicopter. In order that he may better understand and hence accomplish his mission, he receives training as an observer. Also, he must know the entire spectrum of capabilities possessed by the cavalry troop, including how to use them in support of his mission. And

(Left): In order to avoid enemy detection, scout missions are flown nap-of-the-earth.

The scout team's work heightens at the moment enemy armor is located.

of course, not the least important is the pilot's ability to handle the aircraft.

Most scout missions are flown nap-of-the-earth or tree top level and below. This is to keep the enemy from spotting the helicopter. However, it means that much of the flight is in tight maneuvering space and under extreme, unusual conditions. Constant practice is essential to gain flawless proficiency.

It should be clear that the pilot is more than just a flyer. He is a supervisor, instructor and a student. As a supervisor, he watches over the aircraft, the mission and the observer. He teaches the observer fundamentals and techniques of scouting, as well as information concerning the helicopter. Finally he studies scouting, observing, survival and the use of cavalry assets.

The other half of the aeroscout team is the observer. A successful scout mission is dependent on how well this man performs. His failure could result in the loss of lives, equipment and battles. Depending on the organization, he may be a designated enlisted observer, another pilot or the enlisted aircraft crew chief.

Before being allowed to participate in an operational mission, the observer must, as a minimum, be proficient in loading and maintaining all weapons on the helicopter. Also, he must be able to operate all radios on the aircraft. Training of the observer is normally the task of his unit and the team pilot. Rigid courses of instruction are adhered to and lead the observer to the moment when he will receive the command to "move out" on a mission.

An observer's job begins even before the aircraft lifts off. During preflight, he helps the pilot check out the helicopter, ensures that the weapons are mounted properly and are operational, and checks radios, grenades, flares, survival equipment and body armor. At a mission briefing, he makes notes concerning the combat situation and what is to be accomplished. This information is plotted on his map and a final radio communications check is made before the aeroscout team is ready for take-off.

Reconnaissance of key terrain is one of the observers most difficult jobs.

Observer (left) and pilot review flight route before a mission.

Once airborne, the observer's work multiplies. Depending on the type of mission, he will be called upon to reconnoiter a certain area; a specific bridge, town or river; or a route which will be used by a major Army unit later. Quick reflexes, sharp eyes, hard nerves and a keen sense of awareness are necessary at this time.

Often, the observer will navigate for the pilot. Expertise in map reading is mandatory for this and subsequent parts of the mission. All targets, real and suspected, must be noted on the map. Once a sighting is made, a spot report is radioed to headquarters. If enemy fire is encountered, the observer will use the minigun to protect the aircraft and will mark the target with smoke. This enablesattack helicopters to find and destroy the enemy.

When hunting enemy armor, the observer will radio for Cobras to move up when a sighting is made. He then must locate ambush sites for use by the attack helicopters and provide azimuths and ranges to the targets.

Locating enemy tanks is usually the observer's easier task. The difficult job is watching for irregularities in vegetation, terrain, shadows or buildings, all of which might be signs of enemy presence. It may be necessary for the observer to be placed on the ground to conduct a foot reconnaissance of a bridge, hill or river. He also may be called upon to select a landing zone on which the airmobile infantry can be inserted.

Frequently, an observer can be expected to perform other various missions. For example, he may direct or conduct a medical evacuation of wounded personnel. Besides marking targets, he could control Cobra and tactical fighter attacks, and adjust artillery or naval gunfire. Also, like his horse mounted ancestor, he might literally track an enemy cross-country. In case the aircraft is downed, it should be noted that both the pilot and observer are trained in survival and escape methods.

When the mission is done, the job of the aeroscout is similar to that of the pony soldiers. Refueling, rearming of weapons, maintenance, postflight checks and debriefings must be accomplished before a welcomed rest is taken.

The job of the aeroscouts is exciting, challenging, often dangerous, but always rewarding. Their primary mission is defensive in nature - protecting friendly units from enemy attack through air reconnaissance and security. During peacetime, scout skills may be used to assist civil authorities to search for lost persons or survivors of a disaster.

Like many aspects of the Army, the aeroscout traces his heritage and tradition to the past. As did his horse mounted predecessors, today's scout performs his key role in a professional, unheralded manner, and is proud of his past and present, his accomplishments, and the service he provides.

They train the world's best shooters

by t. d. stephens

Marines! The sharpest riflemen in the world! The best trained marksmen found anywhere!

Or so the story goes.

It's true - and has been for almost 200 years.

The Corps was founded around the idea of sharpshooters. Marines were used in the rigging of ships during the days of John Paul Jones to shoot down upon crewmen of ships at war with our budding nation.

They also were used on land, in the Bahamas, Cuba, at Chapultepec and the Halls of Montezuma in Mexico.

Marines have proven around the world that they are "sharpshooters" -- and their training still goes on.

Today's Marine begins to learn about his weapon from the first days of boot training. He learns to care for it, keep it clean, oiled and ready to go. And then comes his first rifle range detail -- two weeks of school range, "snapping in" (firing without ammo), position practice, scoring and firing.

The men responsible for training new Marines in the art of shooting are called PMIs (Primary Marksmanship Instructors). This group of elite Marines come from all occupational specialties and are almost any enlisted rank. The prerequisite for assignment as a PMI is simple -- be an expert shot and have the know-how to impart that knowledge and ability to recruits.

For the PMI, however, it is never a simple job. Every new recruit is a challenge. Some have never shot a weapon. And if they are experienced, they must be taught how to shoot the Marine Corps way using the different positions and the sling to help steady the weapon.

Marine Primary Marksmanship Instructor makes sure that a recruit follows through on his firing sequence - take in a breath, start to squeeze the trigger, set the bull right on the front sight blade, breathe, squeeze, squeeze, squeeze!

A PMI makes an adjustment to the elevation used by a recruit A PMI makes an elevation adjustment between strings of rapid fire. This will help the shooter to bring his next group into the bullseye.

A good, tight hold on the rifle is necessary to fire a high score.

If he is a new shooter, he may be afraid of the weapon. Rifles "kick," and most shooters tend to shy away from the recoil. The PMI must use his knowledge of the weapon and how it fires to give the recruit confidence and help him build his own pride in being a good shot.

Some recruits will flinch with the loud report of the shell firing; others simply close their eyes and jerk the trigger in an effort to get away from the noise and recoil. It is up to the PMI to overcome their natural fear of a rifle which they are not used to. It's a tough job.

The PMI knows the weapon. He also knows how people react to firing a rifle. And, he knows that it is usually a psychological reaction particularly to the mild recoil of the M-16 fired by today's Marine. It is the PMI's job to calm the new shooter and build his confidence without damaging his ego.

"Every Marine is basically a rifleman," is a long time concept of the Corps. And that every Marine was tutored by a PMI sometime in his first few weeks of training, is also basic.

Each year when the rifle range detail rolls around, the words of the PMI still ring in a Marine's mind: SQUE-E-E-EZE the trigger! Set the bullseye right on the front sight blade. Breathe. Take up the slack. Hold your breath. SQUE-E-E-EZE!!! SQUE-E-E-EZE!!!!! Always, just SQUE-E-E-E-EZE!

After all, like the creed, "My Rifle," says, "It's not the noise we make . . . It's the hits that count."

Rapid fire strings require the changing of magazines at the halfway mark, hense, a ready second magazine.

The guns have changed; so has the training

by t. d. stephens

"It ain't what it used to be!"

And when I finished touring the Gunnery School at Naval Training Center, Great Lakes, Illinois, I found that statement to be very true.

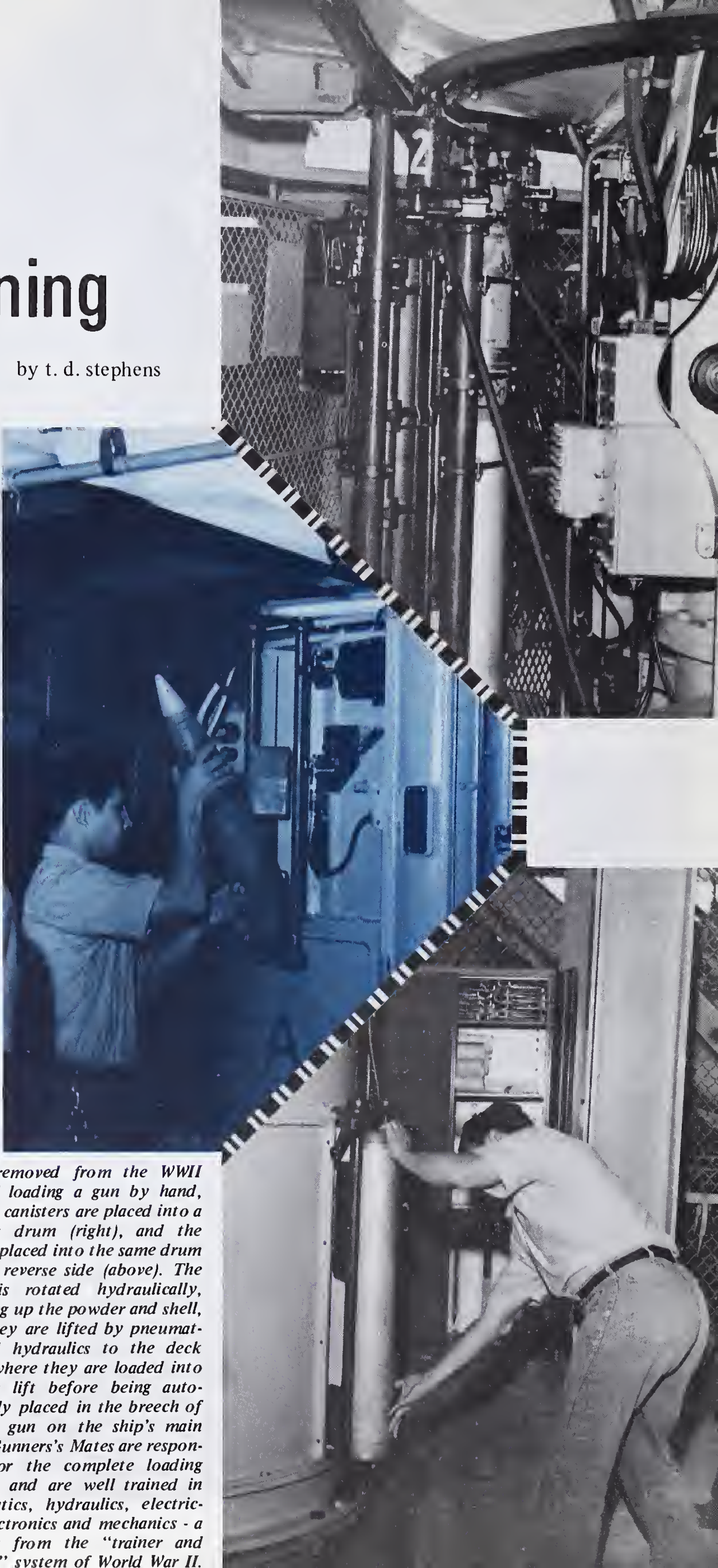
My picture of a gunner's mate was the old World War II image of the guy sitting behind the sights of a 5" gun, cranking with both hands to follow a Japanese Zero coming in on a strafing run. But, "it just ain't so" anymore.

Today, a Gunner's Mate in the U. S. Navy is a highly trained technician capable of trouble shooting the complex gun and missile launching systems used aboard the most modern ships in the fleet.

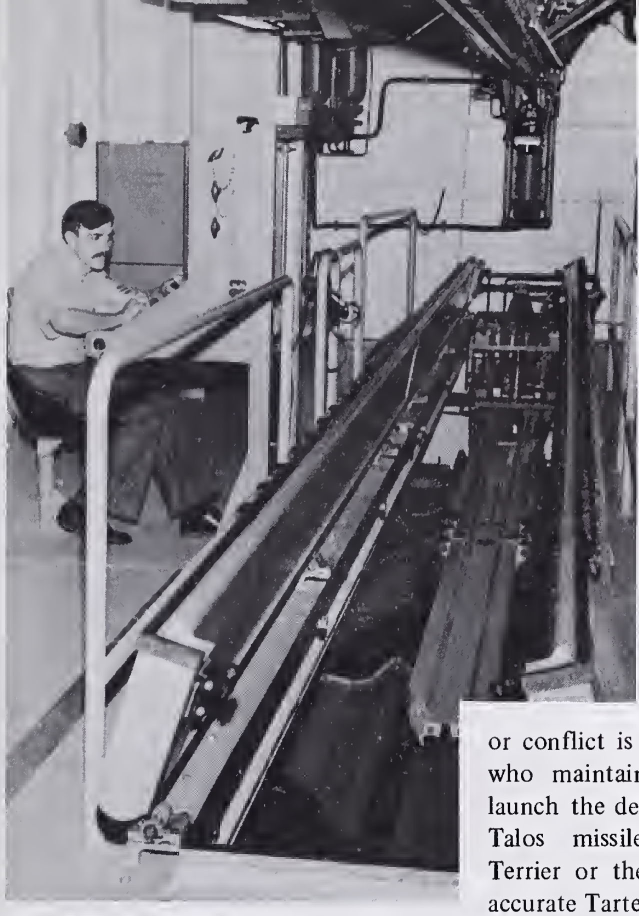
The Gunner's Mate rating, being one of the oldest in any Navy, has evolved from rock and fireball catapults through crude rockets and cannons to the automatic weapons employed today. The complexity of these new, highly sophisticated, electronically oriented weapons made it necessary to split the rating into three subcategories: Gunner's Mate Guns (GMG), Gunner's Mate Missiles (GMM) and Gunner's Mate Technician (GMT).

The "Guns" rating is responsible for the upkeep, maintenance, repair and accurate use of a ship's large caliber guns and basic point defense systems. These may include the 5" or the new 8" guns which are dual purpose and utilize highly sophisticated, solid state logic circuitry. The GMG is also responsible for the issue and accountability of all ammunition.

Many GMGs are assigned the demanding responsibility of independent duties on smaller craft such as landing ships, patrol craft and in-shore fire support craft.



Much removed from the WWII way of loading a gun by hand, powder canisters are placed into a rotating drum (right), and the shell is placed into the same drum on the reverse side (above). The drum is rotated hydraulically, marrying up the powder and shell, then they are lifted by pneumatics and hydraulics to the deck above where they are loaded into another lift before being automatically placed in the breech of the 5" gun on the ship's main deck. Gunners's Mates are responsible for the complete loading system, and are well trained in pneumatics, hydraulics, electricity, electronics and mechanics - a far cry from the "trainer and pointer" system of World War II.



Complex missile loading systems, some even loading from rotating cradle systems far below decks, are maintained and operated by Gunner's Mates.

Two modern-day Gunner's Mates check out a control panel used in loading a totally automatic 5" gun recently acquired by the Navy.

The "Technician" is concerned with two areas. He is responsible for the operation and maintenance of the Anti-Submarine Rocket Weapons System (ASROC). This system greatly increases the effective range of combating enemy submarines. In the second area, the GMT is responsible for storing, inspecting, testing, adjusting, maintaining, repairing and packaging of specialized naval weapons components, including nuclear weapons.

The "Missiles" man is responsible for the maintenance, repair and operation of the launching systems used to accurately prepare and launch the Tarter, Terrier and Talos missiles. These missiles are the "main battery" used in the defense of shipping convoys. The success of a convoy in reaching its destination in time of war or conflict is dependent on the GMM who maintains the system used to launch the deadly accurate long range Talos missile, the medium range Terrier or the close range, pin point accurate Tarter missiles.

The path for training and advancement in the Gunner's Mate rating follows several channels and career patterns. A man, after entering the Navy, is designated during recruit training to attend Gunner's Mate School. After completing four weeks of Basic Electricity and Electronics School, he attends the GM "A" school which is 12 weeks in duration and is mainly concerned with basic concepts of Naval surface ordnance.

The understanding of these concepts, which encompass additional theory and practical training in electricity and electronics, mechanics, hydraulics, pneumatics, use of hand tools and blueprint reading, require that a GM possess a very keen mental and manual dexterity. Although there are Navymen trained in each of these jobs, a GM is required to know each himself and perform maintenance and repair without outside help. In the continuous changing and modernization of weapons, he must be alert for these changes and be able to implement them in his own equipment.

During these 12 weeks of training, he is designated either GMG, GMM or GMT and transfered to the fleet where he may be assigned to anything from sleek, fast destroyers or cruisers, to the invulnerable aircraft carrier.

Under some programs, a man may be retained at Gunnery School for advanced training. This consists of extensive training on a particular gun or missile system. He is then assigned to a ship which is armed with the weapons system in which he has received his advanced training.

To help train students in the GM rating, the Navy's Gunnery School has over $45 million worth of shipboard gunnery equipment installed in one of the world's largest all-glass buildings.

So indeed, the rating has changed. As one instructor told me, "World War II's gunners were those who 'pointed' the gun barrel best." But today, it's a different story. Relay logic, solid state or tube electronics components, and circuit logic are all a part of the everyday language of the modern Gunner's Mate.

No more "pointing'" and pulling the trigger.

It just ". . . ain't what it used to be!" It's so much better today.

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